DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027340
Date Inspected: 15-Mar-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1630
Location: Job Site

CWI Name:	As noted below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

9E PP84.5 E5 Deck Access Hole (Exterior)

This QA Inspector randomly observed ABF welder Salvador Sandoval (ID 2202) employ a propane burner to pre-heat the B-U3b complete penetration joint (CJP) prior to performing Shielded Metal Arc Welding (SMAW) in the 1G flat position on the deck access hole (DAH) at 9E PP84.5 E5 on the exterior of the OBG. The welder was observed utilizing 3.2mm E7018-H4R electrodes procured from a baking oven which drew amperage of 128. QC Inspector Steve McConnell monitored the welding and the parameters and measured the inter-pass temperatures between passes while Mr. Sandoval cleaned the start/stop edges of the work utilizing a small disc grinder. This QA Inspector made subsequent observations throughout the shift and noted that the work is in progress and appeared to be in general conformance with ABF-WPS-D1.5-1010-Revision 1.

9W PP84.5 W2-LS-W (Interior)

This QA Inspector at random intervals, observed ABF welder Mike Jimenez (ID 4671) perform the SMAW process in the 3G vertical position on the west longitudinal stiffener of the DAH at 9W PP84.5 W2 on the interior of the OBG. Mr. Jimenez was observed pre-heating the joint prior to welding and made several passes utilizing E9018-H4R electrodes. QC Inspector Steve Jensen monitored the welding and the parameters and recorded the

amperes as 128 and verified that the work was in compliance with ABF-WPS-D1.5-1012-3-Revision 0. This QA Inspector made subsequent observations throughout the shift and noted that the work was completed on this date and appeared to be in general conformance with the contract specifications.

8W PP70.5 W2 DAH (Interior)

This QA Inspector randomly observed ABF welder Eric Sparks perform the SMAW process in the 3G vertical position on the transverse stiffener of the DAH at 8W PP70.5 W2 on the interior of the OBG. QC Inspector Steve Jensen verified the pre-heat of the joint prior to welding and monitored the work and the parameters to ensure compliance to ABF-WPS-D1.5-1010A-Revision 1. The welder was observed grinding and blending the start/stop edges of the weld utilizing a small disc grinder and cleaned the joint to shiny metal prior to welding. It was also noted that 3.2mm E7018-H4R electrodes were obtained from a remote baking oven before use and drew amperage of 127. This QA Inspector made subsequent observations throughout the shift and noted that the work is in progress.

5W PP29.5 W2-DAH Repair (Interior)

This QA Inspector randomly observed ABF welder Rick Clayborn performing the back-gouge operation of ultrasonic rejectable indications on “A” Deck Access Hole 5W PP29.5 W2 at the locations listed below. This QA Inspector observed QC Inspector John Pagliero perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector observed that no rejectable indications were present.

1. y+515mm; 80mm in length, 20mm wide and 10mm deep.
2. y+1680mm; 80mm in length, 20mm wide and 9mm deep.
3. y+1995mm; 100mm in length, 20mm wide and 10mm deep.
4. y+2435mm; 110mm in length, 20mm wide and 10mm deep.
5. y+3260mm; exterior not excavated
6. y+3305mm; exterior not excavated
7. y+3370mm; 80mm in length, 15mm wide and 19mm deep.

This QA Inspector randomly observed ABF welder Rick Clayborn performing the repair welding operation of ultrasonic indications as per the SMAW process in the (4G) overhead position on the “A” DAH at 5W PP29.5 W2. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector John Pagliero verify that the preheat temperature was at the minimum of 66 degrees C and that the welding parameters (Amps=135) were in accordance with WPS D1.5–1001- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

QA NDT (Interior)

This QA Inspector performed a Magnetic Particle (MT) Inspection at the locations listed below. This QA Inspector performed the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in

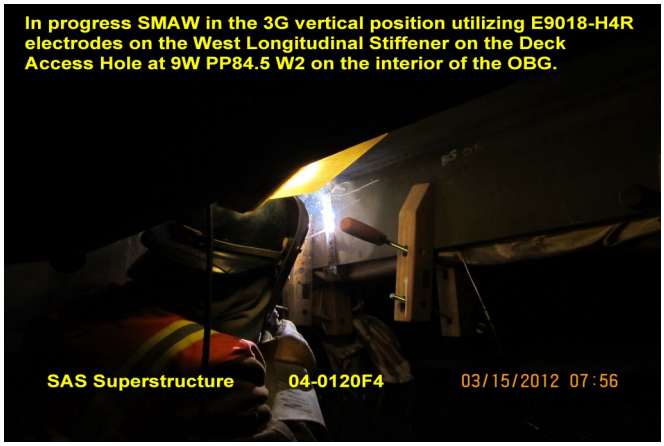
general conformance with the contract specifications.

DAH-8E PP70.5 E2-Transverse Stiffener
DAH-8E PP70.5 E5-Transverse Stiffener
DAH-5W PP29.5 W2-Longitudinal Stiffener-West
DAH-5W PP29.5 W2-Transverse Stiffener

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of the welds at the locations listed above and the Lifting Lug Holes listed below. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

13W PP118.5 W4 Lifting Lug Hole #1
13E PP118.5 E4 Lifting Lug Hole #3

Summary of Conversations:
As noted above.



Comments
This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer